

2015

Online Summer Activity Tracker for Teens

Jamie E. Richter
UVM Medical School

Follow this and additional works at: <http://scholarworks.uvm.edu/fmclerk>



Part of the [Medical Education Commons](#), and the [Primary Care Commons](#)

Recommended Citation

Richter, Jamie E., "Online Summer Activity Tracker for Teens" (2015). *Family Medicine Clerkship Student Projects*. Book 73.
<http://scholarworks.uvm.edu/fmclerk/73>

This Book is brought to you for free and open access by the College of Medicine at ScholarWorks @ UVM. It has been accepted for inclusion in Family Medicine Clerkship Student Projects by an authorized administrator of ScholarWorks @ UVM. For more information, please contact donna.omalley@uvm.edu.

Online Summer Activity & Screen Time Tracker Program for Teens in Vermont

Jamie Richter, MS-III

May-June 2015

Alicia Jacobs, MD

Problem Identification and Description of Need

- ▶ “Obesity threatens the health of today's children to such an extent that they may, for the first time in US history, have a shorter lifespan than their parents.”
- ▶ Childhood obesity has been noted to cause both short-term and long-term risks for orthopedic, neurological, pulmonary, gastroenterological, and endocrine conditions, as well as cardiovascular disease and an increase in all-cause mortality
- ▶ In 2007, approximately 10.58 million, or about 1 in 3, children aged 10-17 in the US were considered overweight or obese

Problem Identification and Description of Need

- ▶ Benefits for teens are seen with daily moderate/vigorous physical activity of 60 minutes or more cumulative duration
- ▶ The benefits of physical activity in youths include, reduced blood pressure levels, improved lipid profile, increased bone mass and density, improved self-esteem, reduction of anxiety, and reduced symptoms of depression
- ▶ One study showed that obesity risk decreased by 10% for every hour of physical exercise and increased by 12% for every hour of television viewing
- ▶ Studies have shown that peer and family support and perceived neighborhood opportunities impact kids' physical activity level
- ▶ Incentive programs have been shown to benefit compliance and adherence in behavioral modification programs

Public Health Cost and Unique Cost Considerations in Host Community

- ▶ Although one of the healthier states, 8% of children in Chittenden County are obese, 12% in the state of Vermont
- ▶ In 2005, in Vermont 1 out of 4 kids grades 8-12 are overweight or at risk for being overweight
- ▶ 50% of overweight children in grades 8-12 watch 3+ hours of TV per day
- ▶ In a 2013 survey, 14% of Colchester high school students self-reported being overweight, 12% reported being obese
 - ▶ In this same survey, 41% of high school students self-reported that they were trying to lose weight
 - ▶ According to the survey, only 29% of students self-reported that they had participated in at least 60 minutes of physical activity every day for the past 7 days

Public Health Cost and Unique Cost Considerations in Host Community

- ▶ Obesity-related hospital costs in the US for kids 6-17 have more than tripled, from \$35 million/year in 1979 to \$127 million/year in 1999
- ▶ Nationally, an estimated \$75 billion was spent in the US on healthcare related to obesity in the year 2003
- ▶ In Vermont in 2003, medical costs related to obesity totaled \$141 million
- ▶ The per capita costs related to obesity in Vermont in 2003 were \$228

Community Perspective on Issue and Support for Project

- ▶ (name withheld), Pediatric Outreach Coordinator at UVM Medical Center's office of Community Health Improvement, already aware of the problem, was working with her intern on a similar idea for younger kids and upon hearing about my project was hoping to work together to tackle the problem
 - ▶ UVM Medical Center's Office of Community Health Improvement was also able to sponsor the project with a fitbit as an end of the summer as a raffle prize
- ▶ (name withheld), Colchester Family Medicine Health Coach, stated "for those who do struggle with weight, it tends to become a lifelong battle leading to chronic conditions such as high cholesterol and diabetes in folks much younger than expected. That in and of itself, makes adolescent obesity a major issue, unless something is done to manage weight, these folks are likely to grow up with an increased risk for chronic conditions."

Intervention and Methodology

- ▶ A website, www.activeVTyouth.org, was created that will allow teens (age 13-18) to sign up with a gmail address and add entries of physical activity, including how many minutes spent and the nature of the activity, as well as track the amount of screen time they have daily
- ▶ A link to the site will be posted on the Colchester Library site
- ▶ Flyers will be posted in the Colchester Family Medicine office and at the library
- ▶ Once logged in, the site will show students their entry history
- ▶ The site will also include a page of links to physical activity ideas, nutritional sites and other health-conscious sites for teens
- ▶ In order to encourage participation, there will be a raffle drawing for a fitbit at the end of the summer, as well as other smaller prizes and the teens will receive a raffle entry for every day that they log 60+ minutes of activity

Results/Response

- ▶ Response can be measured by the number of teens who sign up and continue to add entries throughout the summer
- ▶ Data from the site can be easily pulled and used to gain information on the amount of activity time, the type of activity and how the amount of screen time compares to the amount of daily activity
- ▶ If the program runs for multiple summers, comparisons across summers can be made and retention rates can be assessed

Evaluation of Effectiveness and Limitations

- ▶ Effectiveness can be measured by pulling data from the website to see how many kids signed up and how many exercise minutes were logged
- ▶ Exercise minutes can be compared to screen time minutes to see if there is an inverse relationship
- ▶ Limitations:
 - ▶ Lack of ability to verify reported physical activity
 - ▶ Difficulty for teens to monitor, remember and report physical activity and screen time
 - ▶ Lack of ability to check in with teens throughout the summer and provide opportunities for physical activity

Recommendations for Future Interventions/Projects

- ▶ The program can easily be expanded to children throughout Vermont and the rest of the United States
- ▶ Further demographic information could be requested upon sign up in order to generate more data for further studies
- ▶ The program can become more structured, involve more community resources and have sponsored day events in which the children can try new activities like yoga, baseball, kickball
- ▶ Children can sign up for multiple summers and can aim to beat their previous summer's activity
- ▶ The site could be linked to an activity tracker app, or have its own app developed, so that information on activities can be easily uploaded on the go
- ▶ Extra features could be added, such as allowing the children to set goals and set up activity-related social events (i.e. pick-up basketball games) on the site

References

- ▶ Vermont County Profiles for Medical and Health Sciences Students/Residents. (n.d.). Retrieved June 7, 2015, from http://www.uvm.edu/medicine/ahec/documents/VermontCountyProfiles_000.pdf
- ▶ Ebbeling, Cara B., Dorota B. Pawlak, and David S. Ludwig. "Childhood obesity: public-health crisis, common sense cure." *The lancet* 360.9331 (2002): 473-482.
- ▶ Davis, Matthew M., et al. "Recommendations for prevention of childhood obesity." *Pediatrics* 120.Supplement 4 (2007): S229-S253.
- ▶ Must, Aviva, and Richard S. Strauss. "Risks and consequences of childhood and adolescent obesity." *International journal of obesity and related metabolic disorders: journal of the International Association for the Study of Obesity* 23 (1999): S2-11.
- ▶ Bethell, Christina, et al. "National, state, and local disparities in childhood obesity." *Health Affairs* 29.3 (2010): 347-356.
- ▶ http://healthvermont.gov/family/fit/documents/childhood_obesity.pdf. Vermont Department of Health
- ▶ <http://www.csdvt.org/cms/Colchester%20School%20District%20YRBS%202013.pdf>. Youth Risk Behavior Survey, Vermont Department of Health
- ▶ <http://healthvermont.gov/research/chronic/documents/obesity1.pdf>. Vermont Department of Health